

Notice of Allowability

Application No.

09/407,581

Examiner

Carol S. Tsai

Applicant(s)

ZENHAUSERN, FREDERIC

Art Unit

2857

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 5/27/2005.
2. ☒ The allowed claim(s) is/are 1-7, 10-13, 15, 16, 18, and 19, now renumbered as 1-15.
3. ☐ The drawings filed on _____ are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☒ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☒ to Paper No./Mail Date 11/30/2001.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

DETAILED ACTION

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The application has been amended as follows:

IN THE ABSTRACT:

"A method and apparatus suitable for monitoring the quality and/or performance of a processing aid or a component during manufacture, storage, or use of electronics or electronic assemblies is provided. The apparatus incorporates a sampling device, a multivariate sensing system (e.g., a multi-sensor array or at least one sensor capable of measuring multiple variables) capable to process an analysis of low vapor pressure or vaporizable constituents in electronics by detecting some changes in the physico-chemical properties of said sensor and/or electronics and applying multivariate analysis. In one embodiment, the sensing system comprises an array of metal oxide sensors and a multivariate analysis algorithm for data processing. This method and apparatus can be employed for various quality control purposes such as contamination analysis or failure analysis of integrated circuits components." has been changed to

- - A method and apparatus suitable for monitoring the quality and/or performance of a processing aid or a component during manufacture, storage, or use of electronics or electronic assemblies is provided. The apparatus incorporates a sampling device, a multivariate sensing system (e.g., a multi-sensor array or at least one sensor capable of measuring multiple variables)

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capable to process an analysis of low vapor pressure or vaporizable constituents in electronics by detecting some changes in the physico-chemical properties of the sensor and/or electronics and applying multivariate analysis. In one embodiment, the sensing system comprises an array of metal oxide sensors and a multivariate analysis algorithm for data processing. This method and apparatus can be employed for various quality control purposes such as contamination analysis or failure analysis of integrated circuits components. - -

Allowable Subject Matter

1. Claims 1-7, 10-13, 15, 16, 18, and 19 are allowed.
2. The following is an examiner's statement of reasons for allowance:

U. S. Patent No. 6,658,915 to Sunshine et al. is the reference closest to the claimed invention. Sunshine et al. disclose a non-destructive in situ method for directly monitoring an electronic device, comprising the steps of: measuring at least one outgas or volatile organic compound of a material, a byproduct of the material, a reaction product of a constituent of the material, or a contaminant of a material of the electronic device, by means of a multisensor array comprising at least one solid-state gas sensor; detecting more than one property of the outgas or volatile organic compound to produce more than one signal. However, Sunshine et al. do not teach combining the signal to produce a signal output which can be processed with a multivariate statistical algorithm and processing the signal output with multivariate analysis to convert the signal output into information representative of a quality of the material; and including all of the other limitations in the respective independent claims.

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Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Contact Information

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carol S. W. Tsai whose telephone number is (571) 272-2224. The examiner can normally be reached on Monday-Friday from 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marc S. Hoff can be reached on (571) 272-2216. The fax number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 886-217-9197 (toll-free).

cswt
June 8, 2005



Carol S. W. Tsai
Primary Examiner
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